UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/733,101	CHENG ET AL.
	Examiner	**Art Unit**	
	JOSHUA JOO	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _18 June 2008_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-27_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-27_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _10 December 2003_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Detailed Action

1.   This Office action is in response to communication dated 06/18/2008.

Claims 1-27 are presented for examination.

Response to Arguments

2.   Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection. New ground(s) of rejection are necessitated by Applicant's amendments. Applicant agued that

3.   (1) Roe does not seem to show a multiplexing agent continuing to poll the selected storage location simultaneously with the service of a service request by the subagent.

4.   In response, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). IPMI spec. teaches of a multiplexing agent that continues to poll a selected storage location (Section 6.12.2. Periodic polling.) and Graham teaches of a servicing a service request by the subagent. IPMI does not expressly teach the operations of the multiplexing agent and the subagent determined by the multiplexing agent are simultaneous. However, Roe teaches that engines may operate simultaneously, and that agents within an engine may also operate simultaneously (Paragraph 0039; 0075). Therefore, Roe teaches of agents that operate simultaneously.

5.   (2) The TSE is not same as an operating system resident multiplexing agent that polls for new requests. Examiner has failed to set forth a prima facie case of obviousness.

6.   In response, it is respectfully noted that originally submitted claims did not recite the feature of

"an operating system resident multiplexing agent", and therefore a prima facie case of obviousness cannot

be established for features that are not claimed.

Specification

7.   Amendment to specification dated 06/18/2008 is accepted.

8.   The specification is objected to as failing to provide proper antecedent basis for the claimed

subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

        The terms "machine accessible storage medium" found in claims 11-20 has insufficient

antecedent basis in Applicant's specification.   Applicant is required to make appropriate amendment to

the description to provide clear support or antecedent basis for the terms appearing in the claims provided

no new matter is introduced

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

10.   Claims 1, 3-5, 11, 13-15, 21, 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable

over IPMI, Intelligent Platform Management Interface Specification v1.5, February 20, 2002 (Previously

cited, IPMI spec. hereinafter), in view of Graham et al. US Publication #2005/0071446 (Graham

hereinafter).

11.   As per claims 1 and 11, IPMI spec. discloses substantially the invention as claimed including a

method and a machine-access storage medium for remotely managing a computing device, comprising:

        receiving, by the computing device, a service request sent by a remote application via an out-of-

band (OOB) connection (Sections 1.6.9; 1.6.11. IPMI. Out of band interface. Sections 1.6.18; 1.8; 6.11.

Remote management/access.);

        storing the service request in a selected storage location (Section 6.10.1. Receive message

queue.);

        polling the selected storage location for new requests by an multiplexing agent for new requests

(Section 6.10.1; Section 6.12.2. Software polls for messages in queue.);

        servicing the service request (Sections 1.6.5-1.6.6; 1.8. Access to information such as monitored

data or logs. Section 1.6.11 FRU information.); and

        sending a response to the remote application to indicate that the service request has been

performed (Sections 1.4, 6.12.14, 7.3. Response back to requestor.).

12.   IPMI spec. discloses of performing the above functions of storing, polling, and servicing but is

silent in regards to as an operating system resident multiplex agent and subagent performing the above

functions. IPMI spec. is also silent as to determining by the multiplexing agent a subagent corresponding

to the service request and invoking the subagent on the computing device to correspond to the service

request.

13.   Graham teaches of an operating system resident agent determining and invoking a subagent on

the computing device corresponding to the service request (Paragraph 0032).

14.   It would have been obvious to one of ordinary skill in the art at the time the invention was made

to combine the teachings for the functions taught by IPMI to be performed by an operating system

resident agent and a subagent such that the operating system resident agent determines a subagent and the

subagent determined to correspond to the service request is invoked. The motivation for the suggested

combination is that Neale's teachings would improve IPMI spec. by allowing distribution and

designations of tasks, which would increase performance.

15.   As per claim 21, IPMI spec. discloses substantially the invention as claimed including a system

for servicing out-of-band (OOB) service requests, comprising:

        a processor communicatively coupled to a memory store and a baseboard management controller

(BMC), wherein the BMC is configured to accept service requests from a remote application

communicating with the BMC via an OOB connection (Section 1.6.3; Fig. 1.2. BMC. Sections 1.6.9;

1.6.11. IPMI. Out of band interface. Section 1.6.18; 1.8; 6.11. Remote management/access.), wherein

accepted service requests are stored in a selected storage location in the memory store (Section 6.10.1.

Receive message queue.);

        a multiplexing agent polling the selected storage location for newly received service request

(Section 6.10.1; Section 6.12.2. Poll for messages in queue. Module that polls considered as

multiplexing agent.); and

        servicing the service request (Sections 1.6.5-1.6.6; 1.8. Access to information such as monitored

data or logs. Section 1.6.11 FRU information.).

16.   IPMI spec. teaches of performing the above functions but is silent in regards to a multiplexing

agent running and at least one subagent running on the processor, wherein a subagent corresponding to a

service request type is invoked by the multiplexing agent in response to receiving a new service request.

17.   Graham teaches of an operating system resident agent and a subagent running on a processor,

wherein the subagent corresponding to a service request type is invoked by the operating resident agent in

response to receive a new service (Paragraph 0032).

18.   It would have been obvious to one of ordinary skill in the art at the time the invention was made

to combine the teachings to implement a operating system resident agent and a subagent that run on the

processor, wherein the subagent corresponding to a service request type is invoked by the operating

resident agent in response to receive a new service. The motivation for the suggested combination is that

Neale's teachings would improve IPMI spec. by allowing distribution and designations of tasks, which

would increase performance.

19.   As per claims 3, 13, and 23, IPMI spec. discloses the invention as recited in claims 1, 11, and 21

wherein the selected storage location is a receive message queue (RMQ) construct of intelligent platform

management interface (IPMI) (Section 6.10.1. Receive Message Queue.).

20.   As per claims 4, 14, and 24, IPMI spec. discloses the invention as recited in claims 3, 13, and 23

wherein the service request comprises header information identifying a client sending the service request

(1.6.25; 6.11.4. Authenticate user of message. Section 12.6.1. Identify IP address and MAC address to

respond.).

21.   As per claims 5, 15, and 25, IPMI spec. discloses the invention as recited in claims 4, 14, and 24

wherein the response is sent to the client identified as having sent the service request using a send

message construct of IPMI to indicate service request completion (Sections 1.6.4; 7.3. request/response.

Section 5.2. Response message includes completion code. Section 12.3. Transfer in IPMI message

format.).

22.   Claims 2, 12, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over IPMI spec.

and Graham, in view of Murphy et al. US Patent #7,395,324 (Murphy hereinafter).

23.   As per claims 2, 12, and 22, IPMI spec. and Graham teach of software resident agent invoking

and determining a subagent corresponding to the service request. IPMI spec. and Graham is silent as to

the invention as recited in claims 1, 11, and 21 wherein the subagent is a system management basic input output system (SMBIOS) agent, and wherein the SMBIOS agent accesses the SMBIOS tables to fulfill the service request.

24.   Murphy teaches of a system for monitoring a network, wherein an agent determined to correspond to a service request accesses SMBIOS tables to fulfill the service request (col. 13, lines 14-27, 32-37, 63-67).

25.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to service out of band service requests as taught by IPMI spec. by accessing the SMBIOS tables by a subagent as taught by Murphy. The motivation for the suggested combination is that during management of a computer system, various types of information may be required to properly determine operating condition of the computer system, and an ability to access different components of a system to obtain information would allow effective monitoring of computer system. Murphy's teachings would improve the suggested system by providing a predictable result of allowing retrieval of specific type of data (data from SMBIOS tables) to determine a user's configuration.

26.   Claims 6-7, 16-17, 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over IPMI spec. and Graham, in view of Allard et al. US Patent #6,067,559 (Allard hereinafter).

27.   As per claims 6, 16, and 26, IPMI spec. is silent regarding the invention as recited in claim 1, 11, and 26 wherein the subagent registers a callback function with the multiplexing agent, wherein the callback function corresponds to a service request type.

28.   Allard teaches a system for processing requests, wherein agents register callback functions corresponding to service request types (col. 7, lines 1-5, 54-61; col. 10, lines 37-49).

29.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for an agent to register callback function corresponding to a service request type. The motivation for the suggested combination is that Allard's teachings would allow calling of agents appropriate to process service specific requests.

30.   As per claims 7, 17, and 27, IPMI spec. is silent regarding the invention as recited in claims 6, 16, and 26 wherein a subagent has a plurality of corresponding callback functions.

31.   Allard teaches a system for processing requests, wherein an agent has a plurality of callback functions (col. 7, lines 1-5, 54-61; col. 10, lines 37-49).

32.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for an agent to have a plurality of callback functions. The motivation for the suggested combination is that Allard's teachings would improve the capability of the suggested system by allowing an agent to service different requests.

33.   Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over IPMI spec. and Graham, in view of Roe et al. US Publication #2002/0107905 (Roe hereinafter).

34.   As per claims 8 and 18, IPMI spec. and Graham taught the invention as recited in claims 1 and 11 of a multiplexing agent that continues to poll the selected storage location (Section 6.12.2. Periodic polling.); and of a subagent servicing a service request. IPMI spec. further teaches of providing support for simultaneous sessions (Section 6.11; 6.11.14). IPMI spec. and Graham are silent in regards that the multiplexing agent operating simultaneously with the subagent.

35.   Roe teaches of an agent service system wherein engines and agents operate simultaneously and concurrently (Paragraphs 0039; 0075).

36.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to implement agents capable of operating concurrently. The motivation for the suggested combination is that Roe's teachings would improve the suggested system by allowing tasks to be executed independent of other tasks, reducing delay, and also allow efficient processing of service requests for the simultaneous sessions by performing multiple tasks at once.

37.   Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over IPMI spec. and Graham, in view of Neale, US Publication #2004/0158625 (Neale hereinafter).

38.   As per claims 9 and 19, IPMI spec. is silent regarding the invention as recited in claims 1 and 11, further comprising accepting dynamic updates of available subagents by the multiplexing agent.

39.   Neale teaches a system for monitoring devices, wherein a master agent accepts updates of available subagents (Paragraphs 0022-0023; 0037. Registering of available agents.).

40.   It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teachings for an agent to accept updates of subagents. The motivation for the suggested combination is that Neale's teachings would improve the suggested system by allowing scalability to support additional subagents and allow invoking of the subagents to process requests.

41.   Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over IPMI spec, Graham, and Neale, in view of Pang et al. US Publication #2005/0033766 (Pang hereinafter).

42.   As per claims 10 and 20, IPMI spec. is silent regarding the invention as recited in claims 9 and 19, wherein accepting dynamic updates of available subagents comprises: identifying an added dynamic link library in a predetermined storage location, the added dynamic link library corresponding to a new

subagent; and registering at least one callback function corresponding to the added dynamic link library with the multiplexing agent, wherein the identifying and registering are performed during runtime.

43.   Pang teaches of identifying an added dynamic link library in a predetermined storage location, the added dynamic link library corresponding to a new subagent; and registering at least one callback function corresponding to the added dynamic link library with a software agent, wherein the identifying and registering are performed during runtime (Paragraphs 0006; 0031-0032).

44.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the multiplexing agent as taught by the IPMI spec. and Graham to be registered with at least one callback function corresponding to an added dynamic link library, wherein the added dynamic link library is identified in a predetermined storage location and wherein the identifying and registering identify an added dynamic link library in a predetermined storage location, the added dynamic link library are performed during runtime.   The motivation for the suggested combination is that Graham's teachings would improve the suggested system by allowing execution of routines to process specific tasks and allow sharing of data between programs to reduce required memory.

Conclusion

45.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

46.   A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX

MONTHS from the date of this final action.

47.   Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be

reached on Monday to Friday 7 to 4.

48.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Nathan J. Flynn can be reached on 571 272-1915. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

49.   Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/J. J./
Examiner, Art Unit 2154

/Nathan J. Flynn/
Supervisory Patent Examiner, Art Unit 2154